

### **REMARKS**

Applicant appreciates the Examiner's thorough consideration provided the present application. Claims 1-12 are now present in the application. Claims 1 and 7 have been amended. Claims 1 and 7 are independent. Reconsideration of this application, as amended, is respectfully requested.

#### **Claim Rejections Under 35 U.S.C. §112**

Claims 1-12 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 1-12 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. These rejections are respectfully traversed.

In view of the foregoing amendments, it is respectfully submitted that these rejections have been addressed. Reconsideration and withdrawal of the rejections under 35 U.S.C. § 112, first and second paragraphs, are therefore respectfully requested.

#### **Claim Rejections Under 35 U.S.C. § 103**

Claims 1-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang, U.S. Patent No. 6,135,838, in view of the article "Titanium dioxide photocatalysis", Taoda, U.S. Patent No. 5,670,206, and Yamada, U.S. Patent No. 5,897,958. Claim 11 alternatively stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of the article

“Titanium dioxide photocatalysis”, Taoda and Yamada, and further in view of Ichikawa, U.S. Patent No. 6,024,929. These rejections are respectfully traversed.

In light of the foregoing amendments, Applicant respectfully submits that these rejections have been obviated and/or rendered moot. As the Examiner will note, independent claims 1 and 7 have been amended to recite a combination of steps including “baking said photocatalyst sol coated glass fiber cloth or glass fiber sleeve into a nano-crystalline-photocatalyst-coated glass fiber cloth or glass fiber sleeve in 100-250°C without a sintering process.” Support for the amendments to claims 1 and 7 can be found on page 8, lines 4-5 and page 12, lines 8-14 of the specification as originally filed. Applicant respectfully submits that the above combination of steps as set forth in amended independent claims 1 and 7 is not disclosed nor suggested by the references relied on by the Examiner.

The claimed invention is directed to a process for preparing nano crystalline photocatalyst anatase TiO<sub>2</sub>, and the nano-sized photocatalyst can be excited by UV or visible light to produce photocatalytic interaction. Therefore, the nano crystalline of Anatase TiO<sub>2</sub> particles will be directly combined on the glass fiber cloth or glass fiber sleeve by a low temperature (100-250°C) baking step, and a high temperature sintering process is not necessary for the formation of the nano crystalline of Anatase TiO<sub>2</sub> particles on the glass fiber cloth or glass fiber sleeve. In other words, the Anatase TiO<sub>2</sub> particles are nano-sized both in the sol gel mixture and on the glass fiber, and the nano crystalline of Anatase TiO<sub>2</sub> particles can be deposited on the glass fiber cloth or glass fiber sleeve only by the low temperature (100-250°C) baking step. However, the traditional high temperature baking (sintering) procedure for manufacturing TiO<sub>2</sub> particles in small-sized is necessary. Moreover, as disclosed on page 6, lines 10-17 of the

specification of the present application, the disadvantages of the high temperature baking procedure is solved by the low temperature process of the claimed invention.

Unlike the present invention, Wang in col. 3, lines 60-65 discloses “[t]he coated fiber cloth is undergone a hydrolysis in the air for 1-10 minutes, baked at a temperature of 100-200°C for 10-30 minutes, sintered at high temperature of 400-600°C for 10-120 minutes...to produce a photocatalyst-coated glass fiber cloth“. Therefore, Wang simply discloses a method with sintering process, not a baking step at a low temperature without sintering process. Accordingly, Wang fails to teach “baking said photocatalyst sol coated glass fiber cloth or glass fiber sleeve into a nano-crystalline-photocatalyst-coated glass fiber cloth or glass fiber sleeve in 100-250°C without sintering process” as recited in claims 1 and 7.

With regard to the Examiner’s reliance on the secondary references, these references also fail to disclose the above combination of steps as set forth in amended independent claims 1 and 7. Accordingly, these references fail to cure the deficiencies of Wang.

Accordingly, none of the references utilized by the Examiner individually or in combination teach or suggest the limitations of amended independent claims 1 and 7 or their dependent claims. Therefore, Applicant respectfully submits that all of the claims clearly define over the teachings of the references relied on by the Examiner.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 are respectfully requested.

**CONCLUSION**

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Cheng-Kang Hsu (Greg), Registration No. 61,007 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

Paul C. Lewis

Registration No.: 43,368

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant

